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The above are the means by which Mr. Hookey prevents, in the first place, all motion on each other of the pieces composing the top-side as well as the deck of a ship, and likewise, by the manner in which the iron standards and knees are lodged, unites nearly immovably the deck and top-sides; the consequence of which is, that all, or nearly all, lateral strain is taken away from the bolts and treenails; and thus the whole fabric becomes far stronger and better united than it is in ships of the common construction.

No. XI.

SLIDING SHIPS' COMPASS.

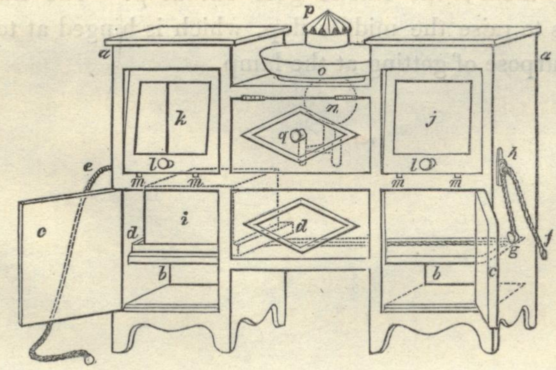
The Sum of FIVE POUNDS *was presented to Mr. W.* POPE, *of Ball Alley, Cornhill, for his Sliding Ships' Compass.*

TILL of late years, ships' binacles were almost universally furnished with two compasses, in order that, on whatever side of the ship the steersman at the time happened to be, he might obtain a direct view of the compass. But in small binacles this inconvenience happened—that the needles of the two compasses mutually attracted each other, and thus introduced an error, often of very serious magnitude, in the indication of the compass. This circumstance is noticed in a work on the local attraction exerted by the iron in a ship on the magnetic needle, published in 1820, by Mr. Lecount, at that time a midshipman in the royal navy, who recommends that the compasses, when two are used, should never be placed at a less distance than four feet from each other.

In some large ships, this cause of error is partly avoided by the use of two binacles, with a compass in each; and in one or two instances that have come to the knowledge of the Society, a binacle with a single compass has been used, the entire binacle being made to slide in a groove from side to side of the ship, so as to suit the convenience of the man at the helm.

Mr. Pope's binacle is stationary, being made externally like a common double binacle with a window on each side of the lamp; but instead of having two compasses, he has only one, which is placed in a shallow rectangular box, which has a cord inserted at each end, and led out through a hole in each side of the binacle. The width of this latter is just as much more than that of the box, as to allow it freely to traverse from one side to the other by pulling one of the cords; and there are two grooves in which the box moves, in order to steady it.

Mr. Pope's sliding compass was first fitted on board the East India Company's ship, Charles Grant, in 1832; and from the report of the agent to the owners of this ship, it appears that it is considered to be a great improvement on the common binacle.



In the annexed figure *a a* is the binacle, *b b* its floor, the two doors *c c* being opened to shew it; *d d* a square board, with a raised edge round it like a tray. To this board are attached the two ropes *e* and *f*; these ropes pass out of the binacle round the pulleys *g*, there being one at each end. These pulleys direct the ropes to the guide-pulleys *h*, by which the ropes are raised high enough to be always ready for the helmsman's hand. The rope *e* has been pulled, and has drawn the sliding board *d* to that side. On this board stands the compass box *i*, within the edges, so that it cannot slip off. On pulling the other rope *f*, the compass *i* will be brought to that side: *j* and *k* are the right and left windows, through which the compass is viewed. These windows fit in their places something like coach windows. To take them out, they are lifted a little by the knob-handles *l l*, as they are only held in at bottom by the short pins *m m*; their bottoms are then pulled forward and lowered out. A lamp with two burners is hung in gimbals in the middle, so as to light both ends of the binacle; it is shewn by dotted lines *n*; above the lamp is a square copper neck, to which is fixed the oval copper top *o*, so that air can go in between them; the smoke goes out at *p*. The knob *q* serves to raise the middle flap, which is hinged at top for the purpose of getting at the lamp.